

REMARKS

Claims 1-26 were pending in this application.

Claims 1-26 have been rejected.

Claims 6 and 10 have been amended as shown above.

Claims 1-26 remain pending in this application.

Reconsideration and full allowance of Claims 1-26 are respectfully requested.

I. REJECTION UNDER 35 U.S.C. § 103

The Office Action rejects Claims 1-5, 7-9, 11-17, and 21-26 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,324,387 to Kamgar et al. (“*Kamgar*”) in view of U.S. Patent No. 6,961,552 to Darabi et al. (“*Darabi*”). The Office Action rejects Claims 6, 10, and 18-20 under 35 U.S.C. § 103(a) as being unpatentable over *Kamgar* and *Darabi* in view of “Hughes.” These rejections are respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. (*MPEP* § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992)). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984)). Only when a *prima facie* case of obviousness is established does the burden shift to the Applicant to produce evidence of nonobviousness. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d

1443, 1444 (*Fed. Cir.* 1992); *In re Rijckaert*, 9 *F.3d* 1531, 1532, 28 *U.S.P.Q.2d* 1955, 1956 (*Fed. Cir.* 1993)). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the Applicant is entitled to grant of a patent. (*In re Oetiker*, 977 *F.2d* 1443, 1445, 24 *U.S.P.Q.2d* 1443, 1444 (*Fed. Cir.* 1992); *In re Grabiak*, 769 *F.2d* 729, 733, 226 *U.S.P.Q.* 870, 873 (*Fed. Cir.* 1985)).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. (*In re Bell*, 991 *F.2d* 781, 783, 26 *U.S.P.Q.2d* 1529, 1531 (*Fed. Cir.* 1993)). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on the Applicant's disclosure. (*MPEP* § 2142).

A. Claims 1-5, 7-9, 11-17, 22, 24, and 26

Claims 1, 7, and 15 recite increasing a current supplied to one or more first amplifiers and/or allowing one or more second amplifiers to amplify an incoming signal “in response to” an “amplified incoming signal” exceeding a “first threshold” and a “desired signal” not exceeding a “second threshold.”

The Office Action acknowledges that *Kamgar* fails to disclose these elements of Claims 1, 7, and 15. The Office Action asserts that *Darabi* discloses these elements of Claims 1, 7, and 15 and that it would be obvious to modify *Kamgar* with *Darabi*. (*Office Action, Page 3, First paragraph*). However, *Darabi* does not disclose, teach, or suggest these elements of Claims 1, 7, and 15.

Darabi recites a radio receiver that uses a low noise amplifier having different gain settings. (*Abstract*). Two receive signal strength indicators (RSSIs) 320 and 324 are used in the radio receiver. (*Figure 3*). RSSI 320 measures the signal strength of a wideband channel, which includes a desired signal and any interference signals in adjacent channels. (*Col. 8, Lines 23-26*). The RSSI 324 measures the signal strength of the desired signal only. (*Col. 8, Lines 26-30*). Based on the outputs of the RSSIs 320 and 324, logic circuitry 328 adapts the operation of a low noise amplifier (LNA) 304. (*Col. 8, Lines 38-55*). Specifically, the following adjustments may occur:

- Case #1: If the desired signal is strong (as measured by the RSSI 324), the logic circuitry 328 causes the amplifier 304 to attenuate a received signal by 32dB. (*Col. 8, Lines 42-46*).
- Case #2: If the desired signal is weak or moderate (as measured by the RSSI 324) and the interference is strong (as measured by the RSSI 320), the logic circuitry 328 decreases the gain of the amplifier 304 by 6dB. (*Col. 8, Lines 46-49*).
- Case #3: If both the desired signal and the interference are weak (as measured by the RSSIs 320 and 324), the logic circuitry 328 causes the amplifier 304 to

provide maximum amplification. (*Col. 8, Lines 49-55*).

As noted above, Claims 1, 7, and 15 recite taking one or more actions (increasing a current supplied to one or more first amplifiers and/or allowing one or more second amplifiers to amplify an incoming signal) “in response to” an “amplified incoming signal” exceeding a “first threshold” and a “desired signal” not exceeding a “second threshold.” Claims 1, 7, and 15 are therefore crystal clear – one or more events occur in response to a “first threshold” being exceeded and a “second threshold” not being exceeded.

Only one of the cases noted above in *Darabi* involves a “first threshold” being exceeded and a “second threshold” not being exceeded. In Case #2, the desired signal is weak or moderate (as measured by the RSSI 324), and the interference is strong (as measured by the RSSI 320). This represents the only time that the logic circuitry 328 in *Darabi* takes action when a “first threshold” is exceeded and a “second threshold” is not exceeded. In this case, the logic circuitry 328 of *Darabi* decreases the gain of the amplifier 304 by 6dB. However, nothing in *Darabi* indicates that the logic circuitry 328 of *Darabi* increases a current supplied to one or more first amplifiers and/or allows one or more second amplifiers to amplify an incoming signal when case #2 occurs. As a result, in this case, *Darabi* fails to disclose, teach, or suggest increasing a current supplied to one or more first amplifiers and/or allowing one or more second amplifiers to amplify an incoming signal “in response to” an “amplified incoming signal” exceeding a “first threshold” and a “desired signal” not exceeding a “second threshold” as recited in Claims 1, 7, and 15.

The other two cases in *Darabi* do not involve a “first threshold” being exceeded and a

“second threshold” not being exceeded. In Case #1, attenuation of a received signal occurs if a single threshold is exceeded (the desired signal is strong). In Case #3, maximum amplification is used if two thresholds are not exceeded (both the desired signal and interference are weak). Neither one of these cases can therefore disclose, teach, or suggest increasing a current supplied to one or more first amplifiers and/or allowing one or more second amplifiers to amplify an incoming signal “in response to” an “amplified incoming signal” exceeding a “first threshold” and a “desired signal” not exceeding a “second threshold” as recited in Claims 1, 7, and 15.

The Office Action asserts that *Darabi* discloses “increas[ing] a current supplied to the one or more first amplifiers” at element 328 in Figure 3 and column 8, lines 23-65. Element 328 in Figure 3 represents the logic circuitry 328 of *Darabi*, and the relevant portions of column 8, lines 23-65 were discussed above. None of these portions of *Darabi* mentions “increas[ing] a current supplied to the one or more first amplifiers.” In fact, none of these portions of *Darabi* mentions any type of “current” used by the amplifier 304 or any other amplifier in *Darabi*.

The Office Action has simply cited two references, each of which uses multiple thresholds. The Office Action has not shown that these references disclose, teach, or suggest the performance of a specific action or actions “in response to” an “amplified incoming signal” exceeding a “first threshold” and a “desired signal” not exceeding a “second threshold” as recited in Claims 1, 7, and 15.

For these reasons, the proposed *Kamgar-Darabi* combination fails to disclose, teach, or suggest all elements of Claims 1, 7, and 15 (and their dependent claims).

B. Claims 6, 10, and 18-20

The Office Action acknowledges that *Kamgar* and *Darabi* both fail to disclose a “switch” capable of coupling a power supply to at least one amplifier as recited in Claims 6, 10, and 18. The Office Action cites “Hughes” as disclosing these elements of Claims 6, 10, and 18 and asserts that it would be obvious to modify the proposed *Kamgar-Darabi* combination with “Hughes.”

First, the Office Action identifies the “Hughes” reference as U.S. Patent No. 5,734,974. However, this patent was issued to Callaway, Jr. et al. The Applicants believe the Office Action intended to cite U.S. Patent No. 6,885,852 to Hughes et al. (“*Hughes*”). If the Applicants’ belief is incorrect, the Applicants respectfully request clarification in the next Official communication.

Second, the switch of *Hughes* is used to couple an input of an RF amplifier 120 to an output of the RF amplifier 120. (*Figure 1*). The cited portions of *Hughes* (elements 108 and 117 in Figure 1 and column 2, lines 8-35) say absolutely nothing about a switch that couples a “power supply” to the amplifier 120 of *Hughes*.

For these reasons, the proposed *Kamgar-Darabi-Hughes* combination fails to disclose, teach, or suggest all elements of Claims 6, 10, and 18 (and their dependent claims).

C. Claims 21, 23, and 25

Claims 21, 23, and 25 recite that “one or more second amplifiers” are allowed to amplify an incoming signal in response to an amplified incoming signal exceeding a first threshold and a desired signal not exceeding a second threshold (where “one or more first amplifiers” produce

the “amplified incoming signal”).

The Office Action cites element 328 in Figure 3 and column 8, lines 23-65 of *Darabi* as anticipating these elements of Claims 21, 23, and 25. However, these portions of *Darabi* are the same portions described above. Not once do these portions of *Darabi* mention using any amplifiers other than the single amplifier 304 shown in Figure 3 of *Darabi*. *Darabi* lacks any mention of using a second amplifier instead of or in addition to the amplifier 304 when certain conditions are met.

For these reasons, the proposed *Kamgar-Darabi* combination fails to disclose, teach, or suggest all elements of Claims 21, 23, and 25.

Accordingly, the Applicant respectfully requests withdrawal of the § 103 rejections and full allowance of Claims 1-26.

II. CONCLUSION

The Applicant respectfully asserts that all pending claims in this application are in condition for allowance and respectfully requests full allowance of the claims.

SUMMARY

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@munckbutrus.com*.

The Commissioner is hereby authorized to charge any fees connected with this communication (including any extension of time fees) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

MUNCK BUTRUS, P.C.

Date: Nov 13, 2006



William A. Munck
Registration No. 39,308

P.O. Drawer 800889
Dallas, Texas 75380
Phone: (972) 628-3600
Fax: (972) 628-3616
E-mail: *wmunck@munckbutrus.com*